

Wetland and historic landscape restoration at Manassas National Battlefield Park

By Bryan Gorsira

MANASSAS NATIONAL BATTLEFIELD PARK, VIRGINIA, was established in 1940 to preserve and interpret the sites of the First and Second Battles of Manassas. The first, fought on 21 July 1861, was also the first major land battle of the Civil War. Thirteen months later, Union and Confederate forces returned to the same ground and fought an intense battle over three days, during which about 33,000 soldiers died. The National Park Service manages these landscapes by protecting the large tracts of land that represent the scene as it existed at the time of the battles 143 years ago. The open fields, wooded areas, ridges, valleys, and streams helped define the fields of battle. In 1988, Manassas National Battlefield Park acquired 558 acres (226 ha) as part of a legislative taking of the Stuart's Hill tract, which is now located in the southwestern portion of the park and incorporates a portion of the Second Battle of Manassas. This tract contained a 100-acre (40-ha) area that was heavily disturbed prior to the purchase (aerial photo, this page); a developer had drastically altered the landscape for a combined residential and commercial development. Alterations included recontouring the area, constructing an entrance road, and reconfiguring the drainage network in preparation for construction of a subdivision and a mall. In addition to these

changes, the development company altered the natural hydrology, including filling in wetland areas.

In 1997 the Smithsonian Institution approached managers at Manassas National Battlefield Park to determine whether an appropriate location existed within the park for a wetland replacement project. The Smithsonian Institution was developing plans for its new Air and Space Museum on a wetland tract at Dulles Airport, but could not build without a wetland mitigation plan, which required replacement of wetland loss somewhere off the airport's property. A potential mitigation project at the battlefield would not only meet the Smithsonian's needs but would also achieve the park's requirement to preserve historical landscape features and the integrity of the battlefield site.

Fortuitously, several years earlier the National Park Service had contracted with the School of Design at the University of Georgia to study the newly acquired Stuart's Hill site and develop a general plan for restoring the heavily disturbed area to its 1862 conditions. With this study in hand, the Smithsonian Institution and Manassas National Battlefield Park agreed that the disturbed area would be an appropriate location for this mitigation project. Wetland

and historic landscape restoration at Gorsira. After years of planning and negotiations, restoration and mitigation were completed in November 2003, taking six months. This involved excavation of more than 100 acres (40 ha), grading slopes to their 1862 contours, and restoring approximately 30 acres (12 ha) of emergent wetlands and 15 acres (6 ha) of forested wetlands that had been altered by the development company. Staff planted upland areas in native warm-season grasses, creating a habitat type that is rapidly dwindling in Virginia, reduced by 55% since 1945. This project was a classic win-win situation for the Smithsonian Institution, which was able to mitigate its wetland damage in the most economical manner possible, and for the National Park

Manassas National Battlefield Park By Bryan Service, which was able to restore its severely compromised cultural and natural resource.

Today parks encounter many threats to their resources, requiring managers to develop a variety of strategies to solve complex conservation issues. Incremental loss of wetlands is likely to continue, with the potential to affect many parks and their resources. The case of Manassas National Battlefield Park shows that wetland banking and other collaborative partnerships with private and public entities can provide opportunities to help compensate for resource damage outside park boundaries with restoration of both natural and cultural resources within p

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